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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/523,179	03/10/2000	Laura Zanibelli	2264-0315-0X	4389

22850 7590 03/26/2002

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EXAMINER
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ART UNIT	PAPER NUMBER
1754	

DATE MAILED: 03/26/2002

12

Please find below and/or attached an Office communication concerning this application or proceeding.

AS-12

Office Action Summary	Application No.	Applicant(s)	
	09/523,179	ZANIBELLI ET AL.	
	Examiner	Art Unit	
	Christina Ildebrando	1754	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondenc address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *15 February 2002* .

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *32 and 41-68* is/are pending in the application.

4a) Of the above claim(s) *32* is/are withdrawn from consideration.

5)☒ Claim(s) *57-67* is/are allowed.

6)☒ Claim(s) *41-56 and 68* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of Group I in Paper No. 11 is acknowledged. The traversal is on the ground(s) that the Office has not provided an adequate reason or example to support a conclusion of distinctness. This is not found persuasive because the examiner provided an alternate use for the composition in the previous office action, which is evidence of distinctness. Applicant has not presented any evidence or arguments as to why the alternate use provided by the examiner cannot be accomplished. Applicant further argues that the Office has not shown that a burden exists in searching all of the claims. However, the search required for the claims of group I is not required for group II and vice versa. Therefore, search and examination of the entire application cannot be conducted without serious burden.

The requirement is still deemed proper and is therefore made FINAL.

2. This application contains claim 32 drawn to an invention nonelected with traverse in Paper No. 11. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

Information Disclosure Statement

3. The information disclosure statement filed 6/12/00 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each U.S. and foreign patent; each publication or that portion which caused it to be listed; and all other information or that

portion which caused it to be listed. It has been placed in the application file, but the information referred to therein has not been considered.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 41-43 and 45-56 are rejected under 35 U.S.C. 102(b) as being anticipated by Oleck et al.

Oleck et al. (US 4,568,655) discloses a catalyst composition useful in hydrotreatment processes. The catalyst composition comprises one or more Group VIA (i.e. molybdenum) or Group VIII (i.e. iron, nickel, or cobalt) metals impregnated on a base comprising beta zeolite admixed with one or more inorganic oxides (column 2, lines 40-48). The examples detail the use of a group VIA and Group VIII metal used in combination.

The catalyst base contains 5-30 % by weight zeolite beta and 95-70 % by weight of an inorganic oxide such as silica, alumina, silica-alumina (column 2, lines 48-53 and column 9, lines 58-65). Oleck et al. teaches that the zeolite is in a form which has sufficient acidic functionality and further teaches that it is in the hydrogen form (column 4, line 56 and column 5, line 6).

The reference further teaches that the preferred amount of Group VIII metal is between 2 and 10% by weight and that the preferred amount of Group VIA metal is between 5 and 20% by weight (column 9, lines 1-10). The amounts disclosed by the reference and the examples appear to meet the instantly claimed molar ratios.

Oleck et al. teaches that the catalyst composition is prepared by mixing the beta zeolite with the inorganic oxide, followed by extruding, calcining, exchanging to low sodium content, drying, impregnating with a group VI metal salt solution, drying impregnating with a group VIII metal salt solution, and re-calcining (column 10, lines 20-38).

As each and every element of the claimed invention is taught in the prior art as recited above, the claims are anticipated by Oleck et al.

6. Claims 41-43 and 45-56 are rejected under 35 U.S.C. 102(b) as being anticipated by Ward.

Ward (US 5,275,720) discloses a catalyst composition useful in hydrocracking processes. The catalyst composition comprises hydrogenation components, zeolite beta, and a dealuminated Y zeolite (column 3, lines 20-30). The composition may further comprise an inorganic refractory oxide such as alumina, silica, or silica-alumina (column 7, lines 55-62). The reference teaches the use of zeolite beta in hydrogen form (column 4, lines 7-8). The reference further teaches the use of at least 5 weight percent, more preferably at least 10 or 20 weight percent, of each zeolite (column 8, lines 65-69).

Ward teaches the use of a group VI metal such as molybdenum or tungsten in combination with a group VIII metal such as nickel or cobalt as hydrogenation

components (column 9, lines 25-35). The group VI metal is contained in amounts in the range of about 5-35 % by weight and the group VIII metal is contained in amounts in the range of about 1-15 % by weight (column 9, lines 45-55). The amounts disclosed by the reference appear to meet the instantly claimed molar ratios.

The catalyst is prepared by preparing an extrudate comprising the zeolites and refractory oxides in calcined form and then impregnating the support with solutions containing the desired metal(s) in dissolved form, and calcining (column 9, line 60 – column 10, line 15).

As each and every element of the claimed invention is taught in the prior art as recited above, the claims are anticipated by Ward.

7. Claims 41-46 and 53-56 rejected under 35 U.S.C. 102(b) as being anticipated by La Pierre et al.

La Pierre et al. (EP 0 094 827) discloses a catalyst composition useful in hydrocracking and hydrodewaxing processes. The catalyst composition comprises a beta zeolite in combination with a hydrogenation component (page 3). The reference discloses specifically the use of cobalt in combination with molybdenum as a hydrogenation component (page 10, last paragraph). The beta zeolite is in hydrogen form (page 6, lines 3-5). The zeolite may further be combined with a matrix material such as silica, silica-alumina, silica-zirconia, etc (page 12). It is taught that the zeolite content of the composition may range from 10-99, more usually 25-80, percent by weight (page 12).

La Pierre et al. teaches that the catalyst is prepared by preparing an extrudate comprising the zeolites and refractory oxides in calcined form and then impregnating the support with solutions containing the desired metal(s) in dissolved form, and calcining (see pages 10-11 and Example 1).

As each and every element of the claimed invention is taught in the prior art as recited above, the claims are anticipated by La Pierre et al.

Claim Rejections - 35 USC § 103

8. Claim 68 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ward as applied to claims 41-43 and 45-56 above.

Ward is applied as above for claims 41-43 and 45-56.

Ward does not teach the sequence of steps recited in claim 68, i.e. impregnation of the oxide carrier with the metals of group VI and VIII, drying and calcining, and mixing with the beta zeolite.

However, with reference to column 10, lines 40-50, Ward teaches that one could co-mull the hydrogenation metal precursor, followed by addition of the zeolites to the co-mulled mixture, drying, and calcining steps. Ward further teaches that the purpose of the calcination step is to convert the metal precursor into oxide form (column 10, lines 1-5).

In this case, the reference teaches all of the instantly claimed steps and there is no evidence that the manipulation of the order of these steps would have any substantial effect on the properties of the catalyst. It is considered that it would have been obvious to one having ordinary skill in the art at the time the invention was made

to rearrange the order of the steps, with reasonable expectation of success. Because Ward teaches that the purpose of the calcination step is to convert the precursor salt to the active oxide form, one of ordinary skill would recognize that the step could be performed at different points in the preparation process, with the same end result.

Allowable Subject Matter

9. Claims 57-67 are allowed.

Response to Arguments

10. Applicant's arguments filed 2/15/02 have been fully considered but they are not persuasive.

With regards to the rejection over Oleck et al., applicant argues that Oleck et al. fails to describe a catalyst composition having cobalt and a metal of Group VIB. The examiner disagrees. Oleck et al. clearly teaches a catalyst composition containing a metal of group VIII, such as nickel or cobalt, and a metal of group VIB such as molybdenum or tungsten. Refer to column 3, lines 55-65. While Oleck et al. may use a different notation than recited in the instant claims, i.e. "VIA" (old IUPAC group name) as opposed to "VIB," it is clear from the disclosure and claims that the metals taught by the Oleck et al. reference are the same as the metals required by the instant claims.

With regards to the rejection over Ward et al., applicant argues that Ward describes a catalyst containing beta zeolite, dealuminated zeolite Y, metals of group VI and nickel, while the instant claims require cobalt. However, the examiner disagrees

with applicant's characterization of the reference. Ward et al. teaches generally that non-noble group VIII metals may be used and cobalt is specifically mentioned as suitable. Refer to column 9, lines 25-35.

Conclusion

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christina Ildebrando whose telephone number is (703) 305-0469. The examiner can normally be reached on Monday-Friday, 7:30-5, with alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steve Griffin can be reached on (703) 308-1164. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-6078 for regular communications and (703) 305-6078 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0651.

STEVEN P. GRIFFIN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700

CAI
March 19, 2002